What is claimed is:

1. A multilevel image data structure which is characterized in that an image frame including features of the image is expressed based on an image grid having at least two different hierarchical levels.

2. The structure of claim 1, wherein said hierarchical level image grid includes cells and is hierarchically divided, and each cell is assigned with the representative color and reliability wherein the representative cloIr represents a color feature of the region corresponding to the cell and the reliabilty of the represent color.

3. The structure of claim 1, wherein said hierarchical level of the image grid uniformly divides with the same number for width and height in the case that an original image has the same width and height.

4. The structure of claim 1, wherein in said hierarchical level of the image grid, in the case that an original image has different size for width and height, one side is uniformly divided, and the other side is divided based on the dividing unit of the one side.

5. An image search method using a multilevel image data structure, comprising the steps of:

matching a spatial color feature of a reference image and target image, which are represented to different hierarchical image grid levels; and

searching images based on a content-based query by a user.

6. The method of claim 5, wherein said color similarity between two images having different hierarchical grid levels is obtained by matching each cell included in two different image grids and based on a similarity between the representative color values having a spatial color feature.

7. The method of claim 5, wherein said color similarity between two images having different hierarchical grids is obtained by matching two image grids, performing a multi-cross in accordance with a spacious color feature between images and comparing a color similaries.

8. The method of claim 5, wherein a color similarity between two images having different hierarchical grids is obtained by matching each region representative color value for thereby searching the similar regions.

9. The method of claim 5, wherein a cell similarity between cells included in the image grid having different hierarchical levels is obtained by multiplying the color similarity (Color_Sim) corresponding to a similarity of the region representative colors between two cells and the first weight, adding a value obtained by multiplying the similarity(I) representing a similarity of a reliability between two cells and a second weight to the color similarity (Color_Sim), and normalizing the similarity.

10. The method of claim 5, wherein said color similarity betwen the two same level grids is obtained based on the total value summed by shifting in a horizontal and vertical direction based on the shifting amount by the difference of the widths and heights between grids when two grids are compared and the similaity is

calculated.

11. The method of claim 5, wherein a color similarity between the two different grids is obtained based on a value summed shifting in a horizontal and vertical direction by the difference of the width and heights between the grids.

12. The method of claim 5, wherein a cell similarity between image grids having a multilevel is used for searching the same position and different position between the same levels between the images in the case that the search is performed by matching the color region.

13. The method of claim 5, wherein a color region matching operation between two image grids having a multilevel is directed to searching at the same position of different levels and at different position when searching the color similarity between different levels.